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| REQUIREMENTS FC | RSITE | INSTALLATION | |
|-----------------|-------|--------------|----------|
| OF THE | | COMPARATOR. | STATINTL |

A. Equipment Site

| . 1. | The | equipmen | nt site | e must | . be | 40 | feet | in | length | and | a |
|----------|-------|----------|---------|--------|------|------|------|------|---------|------|-----|
| minimum | of 18 | feet in | width | as pr | ese | ntec | in | a mo | odified | layo | out |
| drawing, | | | | | | | | | | | |

STATINTL

- 2. An additional space of 18 feet in length and 120 feet in width will be required for the machine room. This room will house an air handler, electric power, vacuum pumps, dry air supply, and air compressors. This space must be adjacent to the stereo comparator in order to have the shortest distance from the instrument for vacuum and air lines. This short distance is required to reduce friction and condensation, and by honoring a three second time element required for pressure in the vacuum and compressed air systems.
- 3. The site should have a minimum of 12 foot ceiling height in order to accomodate a 3 foot raised floor, permit an 8 foot finished ceiling height, and a minimum of 1 foot above the dropped ceiling for utilities.
 - 4. Equipment must be used in a vaulted area

B. Equipment Size and Weight

- 1. The total instrument consists of seven major components as follows:
 - a. The engine
 - b. Utility Cabinet
 - c. Card Punch
 - d. Teletypewriter
 - e. Electric Cabinet No. 1
 - f. Electric Cabinet No. 2
 - g. Electric Cabinet No. 3

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- 2. The engine is 14 feet in length, 7 feet in width, 5 3/4 feet in height.

 Total weight 28,000 lbs.
 - a. The utility cabinet is 3 feet 10 inches in length, 2 feet 8 inches in width, 7 feet in height.

 Total weight 1000 lbs.
 - b. The card punch is 2 feet 7 inches in length, 2 feet 4 inches in width, 2 feet 6 inches in height.

 Total weight 290 lbs.
 - c. Teletypewriter is 2 feet 8 inches in length, 2 feet 4 inches in width, 2 feet 6 inches in height.
 Total weight 125 lbs.
 - d. Electric Cabinet No. 1 is 3 feet 10 inches in length, 2 feet 8 inches in width, 7 feet in height. Total weight - 1000 lbs.
 - e. Electric Cabinet No. 2 is 3 feet 10 inches in length, 2 feet 8 inches in width, 7 feet in height,

 Total weight 1000 lbs.
 - f. Electric Cabinet No. 3 is 3 feet 10 inches in length, 2 feet 8 inches in width, 7 feet in height.

 Total weight 1000 lbs.
 - 3. Total weight of instrument installed 32,415 lbs.

C. Air Conditioning Requirements

1. The air conditioning system for this instrument is very complex. For identification purposes we will identify the air conditioning requirements as room air and equipment air.

a. Room Air

Room air will consist of two separate systems. A horizontial laminer flow at the position of the engine and a vertical laminer flow system in and around the remainder of the equipment.

b. The Instrument Air-

Direct connected air will be required to the utility cabinet, electric cabinets Nos. 1, 2, and 3. In addition the engine will require four separate and direct equipment tie ins for lamp cooling, etc.

c. The Average Temperature

The average temperature requirement is 72%F, plus or Approved For Release 2002/08/28: CIA-RDP78B04747A000200030015-1

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minus 0.5 and the relative humidity is 55 percent, plus 15 percent, minus 5 percent.

| d. | The | Air | CFM | Requirement |
|----|-----|-----|-----|-------------|
| | | | | |

| | Engine | 1300 | CFM |
|------|------------------------|------|-----|
| 2. | Utility Cabinet | 450 | CFM |
| 3. | Card Punch | 220 | CFM |
| 4. | Teletypewriter | 220 | CFM |
| 5. | Electric Cabinet No. 1 | 2000 | CFM |
| 6. | Electric Cabinet No. 2 | 1300 | CFM |
| 7. | Electric Cabinet No. 3 | 2400 | CFM |
| | | | |

e. Total CFM for complete instrument 7890 CFM

D. Electric Power Requirements

| a. | 1. | Engine | 110 VAC | 50 amps ma | aximum 30 |) amps | cont. |
|----|----|--------|---------|------------|-----------|--------|-------|
|----|----|--------|---------|------------|-----------|--------|-------|

2. Utility Cabinet

110 VAC 10 amps

- 3. Card Punch 110 VAC 5 amps
- 4. Teletypewriter

110 VAC 5 amps

5. Electric Cabinet No. 1 110 VAC 9

90 amps maximum 50 amps cont.

6. Electric Cabinet No. 2

110 VAC 40 amps maximum 30 amps cont.

7. Electric Cabinet No. 3

110 VAC 55 amps

b. Total electric requirement:

110 VAC 245 maximum amps 120 amps cont. Circuit shall be 4 wire, 3 phase, positive ground.

c. Thirty-two pair wire and conduit to the main computer room.

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E. Vacuum

a. 24 CFM @ O $^{\prime\prime}$ Hg with a maximum three second delay pressure recovery.

F. Compressed Air

Firm requirements not available.